

REMARKS

In the Advisory Action, the Examiner states that Choo additionally provided the motivation to melt (grind) the edge of the glass to bevel the same via laser as the use of a laser would have eliminated static charge as opposed to the use of a mechanical cutting operation. The Applicants respectfully disagree. As mentioned in previous responses, melting and cutting are two completely different operations. There is no teaching or motivation in the cited references that two separate lasers are to be used to eliminating static build up. The Examiner's conclusion is an impermissible hindsight.

In sections 1-2 of the final Office Action, the Examiner rejects claims 1 and 4-6 under 35 USC 103(a) as being unpatentable over the Admitted Prior Art in view of Choo et al. (US Patent No. 6,297,869) and Kishida et al. (US Patent No. 6,361,867). These rejections are respectfully traversed.

The Admitted Prior Art, Choo et al., and Kishida et al., standing alone or in combination, fails to disclose, teach, or suggest, *inter alia*, the following features of recited by claim 1 of the present application:

“providing a melting device with a first laser device and a second laser device;” and “melting a predetermined portion of the protecting circuit by the first laser device, and melting a predetermined portion of the glass substrate by the second laser device”.

In the Office Action, the Examiner admits (see the paragraph bridging

page 2 and page 3) that the Admitted Prior Art does not teach the above-mentioned features of claim 1. However, the Examiner asserts that Choo et al. read on the above-mentioned features because it provides “two laser devices, each providing unique laser energy to effectively and specifically work upon two different components, a metal buffer layer provided on a glass substrate and the glass substrate itself” (page 4, paragraph 2 of the Office Action). The Applicants respectfully disagree.

As recited by claim 1, the second laser device serves to “**melt**” the predetermined portion of the glass substrate, not to “**cut**” the glass substrate. In contrast, Choo et al. discloses a substrate and a liquid crystal display panel capable of being **cut** by using a laser and a method for manufacturing the same. As shown in Fig. 15 and Fig. 17 of Choo et al., although the cutter 200 includes a first laser light emitter 202 and a second laser light emitter 204, they serve to cut the glass substrate 152 and the buffer layer 158 along the same cutting line 156 (col. 10, lines 36-47).

The main goal of the present application is to provide a method that can bond the integrated circuit device to the glass substrate without suffering from damages by sharp edges of the glass substrate (see page 1, lines 9-11 of the specification). Choo et al.’s device cannot achieve that goal because cutting the glass substrate and the buffer layer along a cutting line is likely to produce sharp edges. The melting method as recited by claim 1, however, will achieve the intended goal and avoid sharp edges of the glass substrate. Note that Choo et al.’s main goal is to cut the LCD panel without generating static charges (see col. 3, lines 14-16). Choo et al. does not concern avoiding sharp edges. Thus, there is no motivation in Choo et al. to

melt the glass substrate instead of cutting it.

Melting and cutting a glass substrate by laser are two different procedures. For example, to melt a glass substrate, the second laser device 32 must emit laser light with long wavelength. In a situation that the protecting circuit 22 is located on the glass substrate 20, the laser light with long wavelength would be reflected by metallic electrodes constituting the protecting circuit 22. Thus, the edges 23 of the glass substrate cannot be completely melted. The first laser device 31 serves to emit laser light with short wavelength to eliminate the portion connecting to the edge 23 of the glass substrate 20 of the protecting circuit 22. The edge 23 of the glass substrate 20 is then melted by the laser light with long wavelength emitted by the second laser device 32.

Kishida et al discloses a laminated glass substrate structure and its manufacture. In Kishida et al, the method is used for forming a laminated glass substrate. That is, the laser in Kishida is only used to grind the edge of the glass substrate. Thus, this citation does not disclose that two laser devices are used to melt different portions of the glass substrate.

None of AAPA, Kishida et al, Choo et al teaches or suggests that the protecting circuit is **melted** by the first laser device and the glass substrate is **melted** by the second laser device. That is, even when Kishida et al and Choo et al are combined with AAPA, the prior art does not teach that the protecting circuit is melted by the first laser device and the glass substrate is melted by the second laser device, as recited by claim 1 of the present application.

Under MPEP 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. As discussed above, the cited references fail to teach all limitations of claim 1, namely the melting processes by the laser devices. There is no suggestion or motivation in the cited references to provide the melting processes because they do not concern avoiding sharp edges.

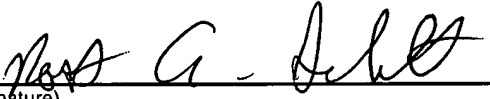
Due to the reasons stated above, the Applicants believe that claim 1 is patentable. Claims 4-6 are also patentable, at least by virtue of their dependency from claim 1. The rejections of claims 7-8 and 10-11 are now moot because these claims have been cancelled.

The Applicants have attempted to address all of the issues raised by the Examiner in the Office Action as the Applicants understand them. The Applicants believe that the Application is now in condition for allowance.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account No. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

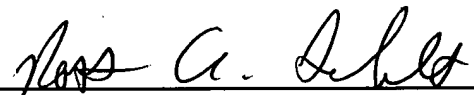
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